

C2114N,1 –(1) General Information

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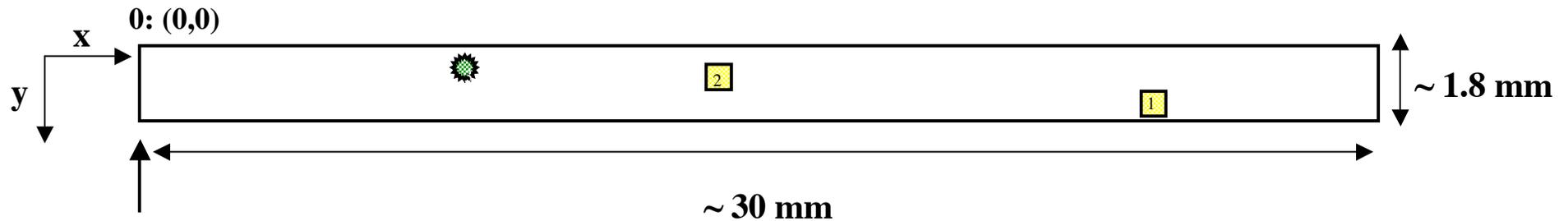
(mapping and chemical analyses performed in February 2006)

- **Dimensions of the foil: $\sim 30 * \sim 1.8 \text{ mm}^2$ (S $\sim 54 \text{ mm}^2$)**
- **SEM-FEG Hitachi S4700, equipped with an EDS system**
- **Search for craters at 20 kV, using the SE upper detector**
- **I = 10 μA**
- **G x1000 for 2/3 of the sample, and 500 for the last 1/3, which showed a very bad surface state.**
- **The sample was held with 2 strips of carbon double tape**



(2) Craters localization

	crat 1	crat2	crat3
x(mm)	24.25	13.73	7.57
y(mm)	1.1	0.45	0.22



A: (black dot on rear)

■ diameter $1 < D \leq 1.5 \mu\text{m}$

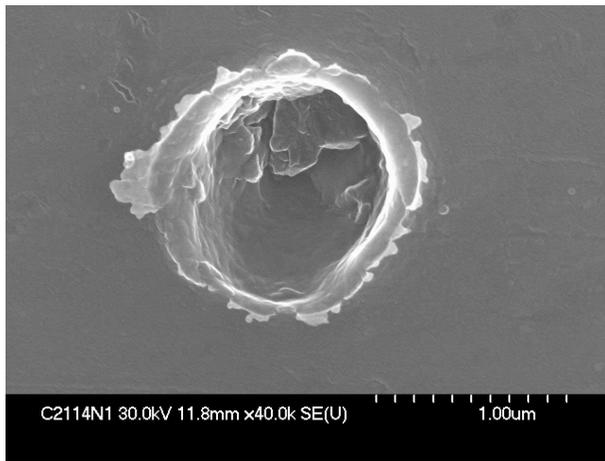
● diameter $1.5 < D \leq 2 \mu\text{m}$

(3) Size distribution

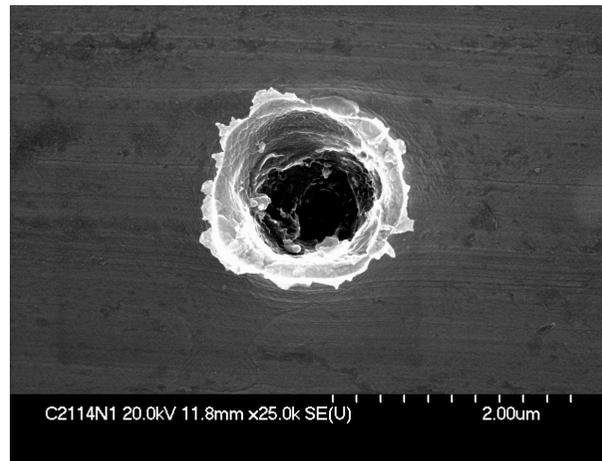
	crater 1	crater 2	crater 3
diameter (in μm)	1.12	1.29	1.64

$$S \sim 54 \text{ mm}^2 \Rightarrow \Phi \sim 5.6 \cdot 10^4 / \text{m}^2$$

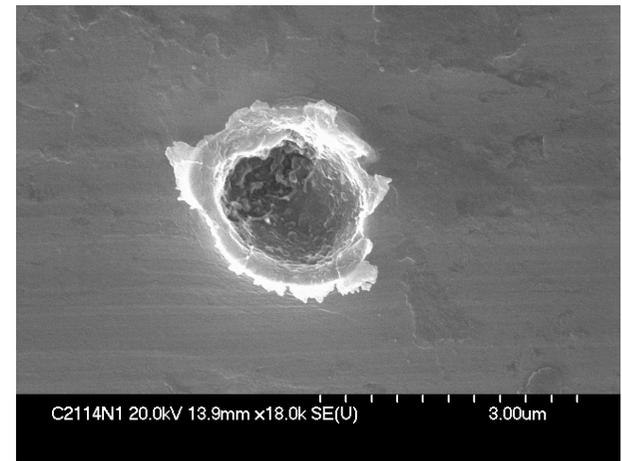
(4) Images of craters



crater 1

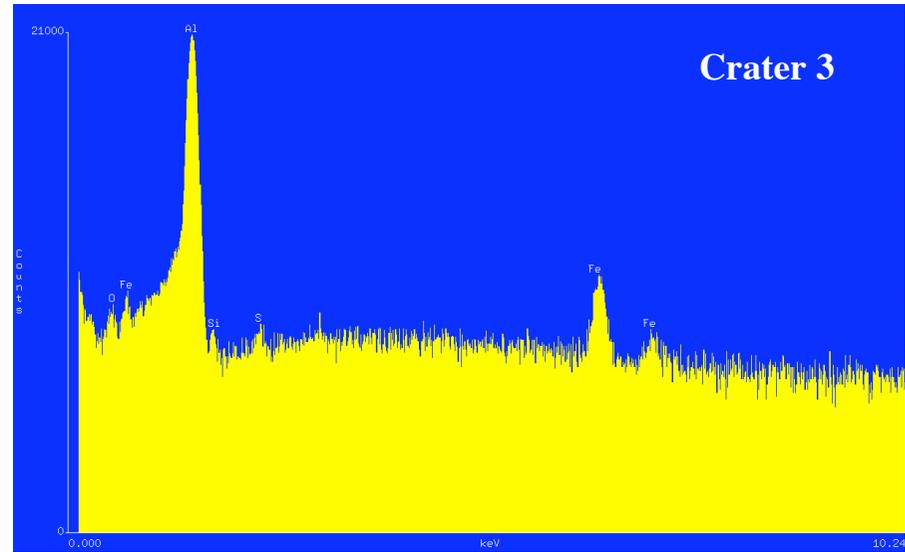
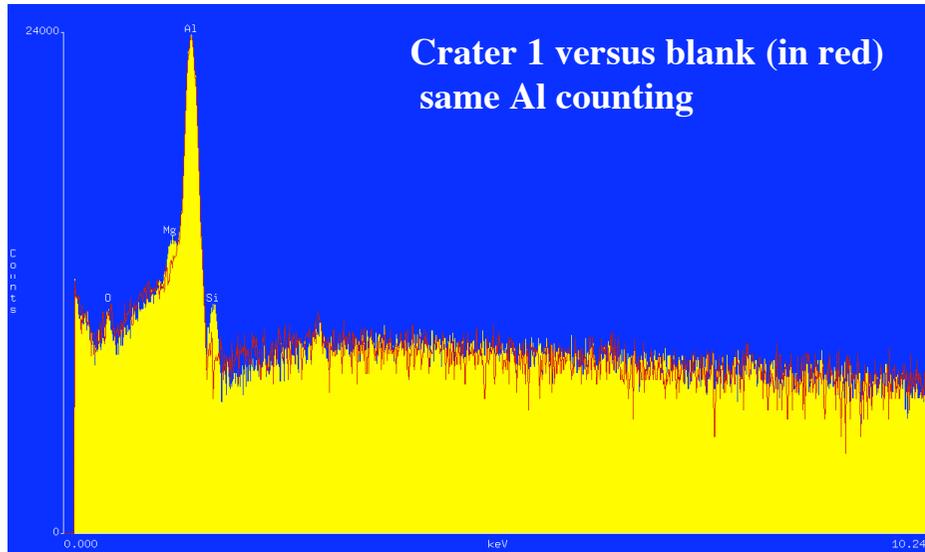


crater 2



crater 3

(5) Composition data



ZAF Correction / Acc.Volt.= 20 kV

Crater 1: O, Mg and Si with $0.5 \leq \text{Mg/Si} \leq 1.6$

Crater 2: no residue detected

**Crater 3: rich in Fe, some S, Mg and Si, with ratios :
 $\text{Mg/Si} \sim 1$; $\text{Fe/S} \sim 8$ and $\text{Fe/Si} \sim 17$**

(6) More

Stardust Al-Foil C2114N1, crater1:

FIB – TEM work described in report by Leroux and al.